

SECTION 6

The Effects of Using IT

Recommended Prior Knowledge

Students will require basic experience of using the Internet. They should have covered all previous sections of the syllabus.

Context

This section should be the sixth studied by the students. It builds on the knowledge obtained from studying all the previous sections.

Outline

This section describes the social, moral and legal implications of using IT.

section	Learning Outcomes	Suggested Teaching Activities	Online Resources	Other resources
6a	Describe what is meant by software copyright.	Demonstrate a variety of software packages which have copyright on them showing the copyright statements.	http://www.patent.gov.uk/copy/definition.htm http://www.ipr-helpdesk.org/docs/docs.EN/softwareCopyright.html http://www.bbc.co.uk/schools/gcsebitesize/ict/legal/2copyrightrev2.shtml	(Walmsley, et. al., 2004, Chapter 6) (Leadbetter, & Wainwright, 2004, 2.6)
6b	Describe what is meant by hacking.	Emphasise that hacking is not as easy as television programmes/movies make it out to be.	http://teach-ict.com/gcse/theory/crime/hacking/hacking/index.htm http://www.bbc.co.uk/schools/gcsebitesize/ict/legal/1misusesrev1.shtml	(Walmsley, et. al., 2004, Chapter 6) (Leadbetter, & Wainwright, 2004, 2.6)
6c	Describe what a computer virus is.	A computer virus is a piece of software devised with malicious intent. Explain how it works.	http://www.school-resources.co.uk/Virus.htm http://www.howstuffworks.com/virus.htm	(Walmsley, et. al., 2004, Chapter 6) (Leadbetter, & Wainwright, 2004, 2.6)

section	Learning Outcomes	Suggested Teaching Activities	Online Resources	Other resources
6d	Explain the measures that must be taken in order to protect against hacking and viruses.	Describe the use of virus checkers/killers, firewalls as well as physical restrictions.	http://teach-ict.com/gcse/theory/crime/hacking/hacking/protection.htm http://www.bbc.co.uk/schools/gcsebitesize/ict/legal/1misuesrev4.shtml	(Leadbetter, & Wainwright, 2004, 2.6) (Walmsley, et. al., 2004, Chpts 6 & 8)
6e	Describe the effects of information technology on patterns of employment, including areas of work where there is increased unemployment.	<ul style="list-style-type: none"> • give examples of computerisation of certain types of industry, • the use of robots in car production, the use of ATMs in banking, • the use of computers to replace clerks in large company offices. 	http://www.bbc.co.uk/schools/gcsebitesize/ict/implications/2workpatternsrev3.shtml http://www.theteacher99.btinternet.co.uk/theteacher/gcse/newgcse/module8/task5.htm	(Walmsley, et. al., 2004, Chapter 8) (Leadbetter, & Wainwright, 2004, 2.4)
6f	Describe the effects of microprocessor-controlled devices in the home, including: <ul style="list-style-type: none"> • their effects on leisure time, • social interaction , • the need to leave the home. 	Class discussion on the types of microprocessor-controlled devices in the home. There is no need to explain how they work just yet – that comes in section 7. Class discussion on the effects this has had or could have on leisure time.	http://www.bbc.co.uk/schools/gcsebitesize/ict/implications/1lifestylerev2.shtml	(Walmsley, et. al., 2004, Chapter 7)
6g	Describe the capabilities and limitations of IT.	Review sections 6a to 6f and make a list of all the features of IT which help us and also those which sometimes hinder us.	http://www.colchsf.ac.uk/ict/ICTASCourse/ict1/ict1-04/ http://www.bbc.co.uk/schools/gcsebitesize/ict/implications/2workpatternsrev1.shtml	(Walmsley, et. al., 2004, Chapter 8)
6h	Discuss issues relating to information found on the Internet, including unreliability, undesirability and the security of data transfer.	Class discussion is a good starter.	http://teach-ict.com/gcse/theory/crime/hacking/hacking/introduction.htm http://www.bbc.co.uk/schools/gcsebitesize/ict/implications/0moralandsocialissuesrev1.shtml	(Walmsley, et. al., 2004, Chpts 6 & 8) (Leadbetter, & Wainwright, 2004, 2.2)

section	Learning Outcomes	Suggested Teaching Activities	Online Resources	Other resources
6i	<p>Describe the potential health problems related to the prolonged use of ICT equipment and some simple strategies for preventing these problems, for example:</p> <ul style="list-style-type: none"> • repetitive strain injury (RSI), • back problems, • eye problems. 	<p>Explain how using computers for a long period of time causes back strain, eyestrain, and RSI for example and go through how these can be combatted.</p>		<p>(Walmsley, et. al., 2004, Chapter 10)</p> <p>(Leadbetter, & Wainwright, 2004, 14)</p>
6j	<p>Describe a range of safety issues related to using computers and measures for preventing accidents.</p>	<p>Go through all the safety implications –</p> <ul style="list-style-type: none"> • overloading of electrical sockets, • trailing wires, • food and drink spillages. 	<p>http://www.bbc.co.uk/schools/gcsebitesize/ict/implications/3healthandsafetyrev1.shtml</p> <p>http://www.london-learning.net/html/session6/healthsafety.html</p>	<p>(Walmsley, et. al., 2004, Chapter 6)</p> <p>(Leadbetter, & Wainwright, 2004, 2.2 & 2.3)</p>